21. A dual-band microstrip antenna as in claim 20, wherein conduction surfaces of the ground member are shaped to substantially correspond to patterns of current flow detected in the ground-member conduction surfaces when the antenna is active before such shaping.

22. A dual-band microstrip antenna as in claim 20, wherein the ground member has a rectangular outer profile and wherein sides and one end of the patch structure are in respective alignment with sides and one end of the ground member.

23. A dual-band microstrip antenna as in claim 22, wherein the first portion of the patch structure is a first patch, wherein the second portion of the patch structure is a pair of second patches each positioned adjacent a respective opposite side of the first patch, one end of each first and second patch corresponding to the one end of the patch structure, wherein an antenna signal feedline is connected to a generally central position on the first patch, and wherein a shorting member extends from each second patch to the ground member at a point proximate the one end of the second patch and the ground member.

91

24. A dual-band microstrip antenna comprising:

a ground member; and

first and second portions of a patch structure that is in a generally parallel spaced relationship with the ground member, first and second resonant frequency ranges being defined by electromagnetic interaction between the patch structure and the ground member; wherein sides and one end of the patch structure are in respective alignment with aides and one end of the ground member, wherein the first portion of the patch structure is a first patch and the second portion of the patch structure is a pair of second patches, each second patch having a side adjacent a respective opposite side of the first patch, one end of each first and second patch corresponding to the one end of the patch structure, wherein an antenna signal feedline is connected to a generally central position on the first patch, wherein the first patch is not directly connected to the ground member, and wherein a shorting member extends from each second patch to the ground member at a point proximate the one end of the second patch and the ground member.

25. A dual-band microstrip antenna as in claim 23, wherein each second patch has a length approximating the length of the first patch, and has a width approximating one-half the width of the first patch.

26. A dual-band microstrip antenna as in claim 24, wherein each second patch has a length approximating the length of the first patch, and has a width approximating one-half the width of the first patch.

27. A dual-band microstrip antenna as in claim 25, wherein the first patch is generally configured as an 'H', with the sides of the first patch corresponding to side members of the 'H'.

28. A dual-band microstrip antenna as in claim 26, wherein the first patch is generally configured as an 'H' with the sides of the first patch corresponding to side members of the 'H'.

29. A dual-band microstrip antenna as in claim 23, wherein a conduction surface of the ground member is configured as a hollow generally rectangular structure, with a cross-piece extending between the sides of the structure at a projection of the position at which the antenna signal feedline connects to the first patch.

30. A dual-band microstrip antenna as in claim 27, wherein a conduction surface of the ground member is defined by two side members and an other-end member and with a cross-piece extending between the two side members at a projection of the position at which the antenna signal feedline connects to the first patch, and wherein extensions of the side members of the first patch extend from the one end of the patch structure to the plane of the ground member and then in the plane of the ground member for a part of the distance toward the cross-piece.

31. A dual-band microstrip antenna as in claim 28, wherein a conducting surface of the ground member is defined by two side members and an other end member and with a

cross-piece extending between the two side members at a projection of the position at which the antenna signal feedline connects to the first patch, and wherein extensions of the side members of the first patch extend from the one end of the patch structure to the plane of the ground member and then in the plane of the ground member for a part of the distance toward the cross-piece.

32. A dual-band microstrip antenna as in claim 29, wherein a coaxial cable is attached to the antenna such that a ground portion of the cable is connected to the cross-piece of the ground member, and such that a signal feed portion of the cable defines the antenna signal feedline attached to the first patch.

33. A dual-band microstrip antenna as in claim 30, wherein a coaxial cable is attached to the antenna such that a ground portion of the cable is connected to the cross-piece of the ground member, and such that a signal feed portion of the cable defines the antenna signal feedline attached to the first patch.

34. A dual-band microstrip antenna as in claim 31, wherein a coaxial cable is attached to the antenna such that a ground portion of the cable is connected to the cross-piece of the ground member, and such that a signal feed portion of the cable defines the antenna signal feedline attached to the first patch.

35. A dual-band microstrip antenna as in claim 29, wherein the antenna is formed from a printed circuit board having a conductive layer on one side, wherein conducting surfaces of the ground member are formed by removing portions of the conductive layer on the one side of a first segment of the circuit board, wherein conducting surfaces of the patch structure are formed by removing portions of a conductive layer on the one side of a second segment of the circuit board, and wherein the first and second segments of the circuit board are then mounted in parallel spaced relationship, and shorting members are applied between the ground member and the second patches proximate the one end of the ground member and the second patches.

36. A dual-band microstrip antenna as in claim 30, wherein the antenna is formed from one or more printed circuit boards having a conductive layer on one side, wherein the conducting surfaces of the ground member are formed by removing portions of the conductive layer on the one side of a first segment of the circuit board, wherein the conducting surfaces' of the patch structure are formed by removing portions of the conductive layer on the one side of a second segment of the circuit board, wherein the first and second segments of the circuit board are then mounted in parallel spaced relationship, and wherein shorting members are applied between the one end of the ground member and the one end of the first and second patches.

91

37. A dual-bend microstrip antenna as in claim 31, wherein the antenna is formed from one or more printed circuit boards having a conductive layer on one side, wherein the conducting surfaces of the ground member are formed by removing portions of the conductive layer on the one side of a first segment of the circuit board, wherein the conducting surfaces of the patch structure are formed by removing portions of the conductive layer on the one side of a second segment of the circuit board, wherein the first and second segments of the circuit board are then mounted in parallel spaced relationship, and wherein shorting members are applied between the one end of the ground member and the one end of the first and second patches.

38. A dual-band microstrip antenna comprising at least two conductive radiating structures having electromagnetic interaction, at least one of the structures being apertured at locations where, if apertures were not present, induced currents would be relatively low compared to currents in other parts of the structure.